

45. A phagemid according to claim 44, wherein the single-chain polypeptide is a single-chain antibody.

46. A phagemid according to claim 44, wherein said polypeptide-coliphage pIII fusion proteins contains a protease-sensitive site between the single-chain polypeptide and the coliphage pIII polypeptide.

47. A phagemid according to claim 44 or claim 45, further comprising expression control elements upstream of said DNA and further encoding at least one selectable marker.

48. A process for the production of a phagemid according to claim 44, comprising fusing a DNA encoding a single-chain polypeptide to a DNA encoding a functional coliphage pIII polypeptide, wherein said functional coliphage pIII polypeptide comprises contiguous amino and carboxy domain of a coliphage pIII protein, and inserting the resulting DNA molecule into a phagemid.

49. The process according to claim 48, further comprising inserting a protease-sensitive site between the DNA encoding the single-chain polypeptide and the DNA encoding the coliphage pIII polypeptide.

50. A phagemid according to claim 44, wherein said coliphage pIII polypeptide is a full-length coliphage pIII protein.

51. A method of screening for binding ligands, comprising exposing ligands to a single chain polypeptide-coliphage pIII protein expressed by the phagemid of claim 44 and selecting those ligands which recognize and bind to the single chain polypeptide-coliphage pIII protein.

REMARKS

The substitute specification adds no new matter.

The new claims are related to phagemids and their use for creating a fusion protein comprising a specific binding pair member and a coliphage protein. Support for the claims is found at various places throughout the specification, for example, on page 15, lines 13-30 carrying over to page 16, lines 1-3; page 18, lines 1-22; and page 96,